TruthClock: Photon Interferometric Device for Detection of Gravitational, Inertial, and Spatial Deviation from an Operational Absolute Rest Frame

Abstract

The present invention relates to a photon interferometric device capable of detecting gravitational, inertial, and spatial deviations from an operational Absolute Rest frame as revealed by light's null proper time behavior. The device autonomously measures internal recombination drift without reliance on external synchronization, enabling spatial-temporal reconciliation across independent systems without dependence on traditional positioning or timing networks.

1. Declaration of Novel Scientific Principle and Practical Application

I, John Morris, hereby declare the invention of a novel operational principle and its corresponding practical application, as described herein.
This invention centers upon the realization and operationalization of the hypothesis that the speed of light (c) represents an Absolute Rest frame,
rather than merely a universal velocity limit as traditionally interpreted within Special and General Relativity frameworks.

2. Fundamental Theoretical Insight

The foundation of this invention rests upon the observation that a photon, which experiences null proper time ($d\tau = 0$),
is in a state that can be interpreted as absolute rest with respect to the underlying spacetime manifold. Although material observers
perceive photons as traveling at c, the photons themselves do not experience the passage of time or spatial displacement in their frame.
Therefore, this unique behavior of light suggests the existence of a universal Absolute Rest frame embedded within spacetime,
accessible operationally by material systems through precise observation of light's behavior.

3. Practical Realization: TruthClock Photon Interferometer Device

The TruthClock device operationalizes this insight by:
- Creating a fully sealed, thermally and mechanically stabilized portable photon interferometer.
- Calibrating the interferometric phase lock at an initial location under controlled conditions.
- Transporting the device (without external synchronization or opening) to a new gravitational and/or inertial frame.
- Observing the internal phase drift purely as a function of spacetime distortion or relative motion with respect to the operational Absolute Rest frame.

This photon interferometer does not rely on GPS, external clocks, internet synchronization, or atomic clocks.
It solely uses internal light recombination drift as its signal source.

In its advanced configuration, the TruthClock photon interferometer includes an autonomous internal information engine capable of continuously recalculating recombination drift multiple times per second. This continuous recalibration allows the device to dynamically maintain synchronization with the operational Absolute Rest frame, thereby preserving spatial and temporal fidelity under varying gravitational and inertial conditions without the need for any external reference or synchronization input.

In addition to gravitational potential differences, TruthClock is inherently sensitive to inertial and spatial displacement variations caused by differential rotation speeds of the Earth at different latitudes. Because locations nearer to the equator (e.g., Houston) travel greater linear distances per unit time compared to locations farther from the equator (e.g., Denver), there exists a measurable inertial deviation even when both locations are at rest relative to Earth's surface.
TruthClock’s photon interferometer is uniquely capable of detecting such inertial drift without external references, further reinforcing its capacity to operationalize an Absolute Rest standard based solely on light’s null proper time condition.

4. Proof of Concept (Prior Atom Interferometer Experiments)

The principle of detecting internal phase drift as a function of gravitational and inertial deviation has already been experimentally validated using atom interferometer systems. Notable examples include the pioneering work of Kasevich and Chu (1991), Müller et al. (2008), and Geiger et al. (2011). These experiments demonstrated that recombination phase drift occurs predictably
under varying gravitational potentials and inertial frames. TruthClock extends this principle into a purely photonic domain by implementing a photon interferometer capable of detecting such drift
without relying on matter-wave coherence, enabling practical, ruggedized, portable deployment.

5. Theoretical Operational Prediction Using GR and SR

Based on the foundational principles of General Relativity (GR) and Special Relativity (SR), the expected recombination drift of the TruthClock photon interferometer can be theoretically calculated.

For gravitational time dilation:
The time dilation between two gravitational potentials is given by:

$$\Delta t \approx t_0 \, (1 - (\Delta\phi/c^2))$$

where $\Delta\phi$ is the difference in gravitational potential between two locations, and c is the speed of light.

Houston and Denver have different gravitational potentials due to their differences in elevation. This yields a calculable $\Delta\phi$, which causes predictable phase drift observable by the TruthClock.

For inertial (special relativistic) effects:
Since Houston (30° N) is closer to the equator than Denver (40° N), its effective velocity due to Earth's rotation is greater. Using:

$$v_effective = \omega \times r_effective$$

where ω is Earth's angular velocity and r_effective = r_Earth × cos(latitude), the relative velocities can be computed, and thus special relativistic time dilation differences:

$$\Delta t \approx t_0 \, (1 - (v^2/2c^2))$$

Both gravitational and inertial contributions combine to generate a net recombination drift detectable by the TruthClock's autonomous information engine, enabling the device to independently determine
its deviation from an operational Absolute Rest frame.

6. Spatial-Temporal Reconciliation via Absolute Rest Deviation

Once the TruthClock photon interferometer determines the internal recombination drift resulting from gravitational and inertial dilation, it becomes possible to calculate where the recombination event
would have occurred in the absence of such distortions — the ideal recombination point relative to the Absolute Rest frame.

By analyzing both the magnitude and vectorial direction of the measured recombination drift, the device can infer the specific spatial displacement experienced relative to the operational Absolute Rest frame.

Consequently, any two entities equipped with TruthClock systems can, by referencing their own recombination drift vectors relative to Absolute Rest, reconcile their precise spatial-temporal coordinates autonomously.

This enables a universal synchronization of position and time without external reference frames, without satellite-based systems, and without prior knowledge of relative velocity or gravitational potential differences.

Thus, TruthClock establishes not only a self-correcting standard of time but a practical foundation for Absolute Rest-based positioning and navigation.

7. Ownership and Rights Claim

I, John Morris, claim full inventorship, authorship, and ownership of the following:
- The operational principle that c represents Absolute Rest for practical application purposes.
- The method of detecting gravitational, inertial, and spatial displacement deviations via fully contained photon-based interferometric phase drift without external synchronization.
- The TruthClock photon interferometer device as described herein.
- All derivative methods, apparatuses, and systems utilizing light's null proper time condition as an Absolute Rest standard for measurement, navigation, positioning, or timekeeping purposes.

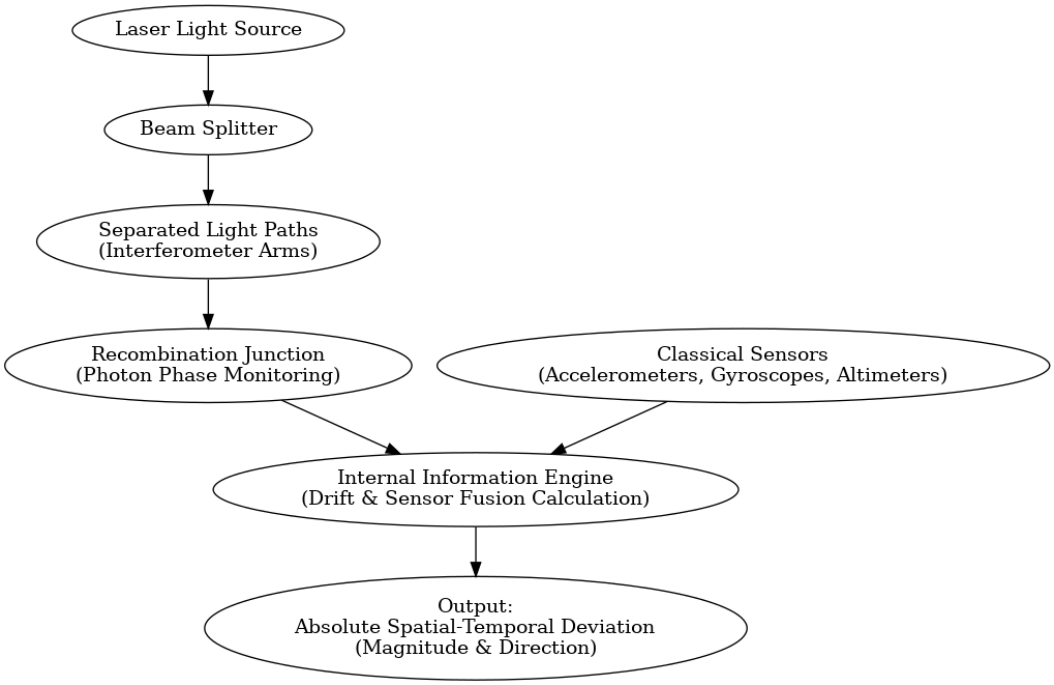
8. Scope of Protection

The claims of this declaration extend to any apparatus, method, or system configured to detect gravitational, inertial, and/or spatial displacement deviations from a universal Absolute Rest frame
by utilizing internal photon interferometric recombination drift or any equivalent massless propagation medium. This includes, but is not limited to, variations based on differing wavelengths,
interferometric configurations, or container designs, provided the operational principle remains centered on internal null proper time drift detection without external synchronization.

9. Formal Signature

Signed,

John Morris

Date: _____

10. Diagram: Conceptual Block Flow of TruthClock Photon InterferometerThe following diagram illustrates the operational flow of the TruthClock photon interferometric device, combining photon phase monitoring with classical sensor inputs to compute absolute spatial-temporal deviation relative to an operational Absolute Rest frame.